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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,080	11/13/2001	Jerome P. Ranch	0881	6034
27310	7590	02/04/2004	EXAMINER	
PIONEER HI-BRED INTERNATIONAL INC.			KALLIS, RUSSELL	
7100 N.W. 62ND AVENUE			ART UNIT	
P.O. BOX 1000			PAPER NUMBER	
JOHNSTON, IA 50131			1638	

DATE MAILED: 02/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,080

Applicant(s)

RANCH ET AL.

Examiner

Russell Kallis

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) 3,7-10,14-24,27,31-34,38-48,51 and 62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,11-13,25,26,28-30,35-36,49,50 and 52-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3/12/2002. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, Claims 1-2, 4-6, 11-13, 25-26, 28-30, 35-37, 49-50 and 52-61 in Paper No. 10/28/2003 is acknowledged.

Claims 1-2, 4-6, 11-13, 25-26, 28-30, 35-37, 49-50 and 52-61 are examined. Claims 3, 7-10, 14-24, 27, 31-34, 38-48, 51 and 62 are withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-5, 28-29, 54-57 and 61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claims 4, 28 and 54, "high concentration" is indefinite. It is unclear how high of a concentration is claimed.

In Claim 54, "further comprising" is indefinite because it suggests there is another method step, but the claim does not recite a method step.

In Claim 55, line 4, "said nucleotide construct" lacks antecedence.

In Claims 55 and 61, line 2, "rupture disk rating of about 200" should have a unit measure for the disk rating i.e. p.s.i..

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-6, 11-12, 25-26, 28-30, 35-36, 49-50, 52-54 and 58-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunder E. *et al.* in Maize Transformation by Microprojectile Bombardment of Immature Embryos; Springer-Verlag, Berlin-Heidelberg; pages 127-138.

Dunder teaches excision and direct placement of immature maize embryos upon osmotic treatment medium for 3 to 4 hours for a same day transformation by microprojectile bombardment (page 134), wherein the osmotic pretreatment comprises auxin-depleted MS medium lacking phytohormones (i.e. MS medium containing osmoticum as taught by Vain and incorporated through reference) containing various percentages of sucrose i.e. 6, 12 and 18% (see page 130, lines 20-21 and page 134); bombardment pressure ranging from 200 to 1550 p.s.i.; particle flight distance ranging from 3-9 cm (page 131); 1 micron sized gold particles (page 133); regeneration into a transgenic maize plant (page 137 and in Vain *et al.*; page 87, Column 2 incorporated through reference); and thus the reference teaches all the limitations of Claims 1-2, 4-6, 11-12, 25-26, 28-30, 35-36, 49-50, 52-54 and 58-60.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-2, 4-6, 11-12, 25-26, 28-30, 35-37, 49-50, 52-57 and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunder E. *et al.* in Maize Transformation by Microprojectile Bombardment of Immature Embryos; Springer-Verlag, Berlin-Heidelberg; pages 127-138.

The teachings of Dunder are discussed *supra*.

Dunder does not teach incubation on auxin depleted medium for less than 2 hours and bombardment using gold particles of 0.6 micron in size.

Dunder teaches the optimization of design parameters for particle bombardment (page 129, second and third paragraphs). The choice of incubation of immature maize embryos on auxin depleted medium for less than 2 hours and bombardment of said maize embryos using 0.6 micron gold particles would have been an obvious design choice.

All claims are rejected.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kallis whose telephone number is (571) 272-0798. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (571) 272-0804. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0198.

Russell Kallis Ph.D.
January 16, 2004

A handwritten signature in black ink, appearing to read "Amy Nelson", with a stylized flourish at the end.

**AMY J. NELSON, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600**